

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: STANFORD POND, STN N	Lake Area (ha):	4.61
Town: HARRISVILLE	Maximum depth (m):	2.1
County: Cheshire	Mean depth (m):	1.3
River Basin: Connecticut	Volume (m ³):	61500
Latitude: 42°56'27" N	Relative depth:	0.9
Longitude: 72°06'41" W	Shore configuration:	1.83
Elevation (ft): 1245	Areal water load (m/yr):	7.07
Shore length (m): 1390	Flushing rate (yr ⁻¹):	5.30
Watershed area (ha): 56.4	P retention coeff.:	0.60
% watershed ponded: 0.0	Lake type:	natural

BIOLOGICAL:

10 February 1997

20 August 1996

DOM. PHYTOPLANKTON (% TOTAL)	#1	DINOBRYON 95%	PLANKTON NOT SAMPLED
	#2		
	#3		
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			
DOM. ZOOPLANKTON (% TOTAL)	#1	SPARSE - NO DOMINANT	
	#2		
	#3		
ROTIFERS/LITER		10	
MICROCRUSTACEA/LITER		<1	
ZOOPLANKTON ABUNDANCE (#/L)		10	
VASCULAR PLANT ABUNDANCE			Scat/Common
SECCHI DISK TRANSPARENCY (m)			1.2
BOTTOM DISSOLVED OXYGEN (mg/L)		8.9	9.0
BACTERIA (E. coli, #/100 ml)	#1		< 10
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m³) : None
Anoxic volume (m³) : None

CHEMICAL:Lake: STANFORD POND, STN N
Town: HARRISVILLE

	10 February 1997		20 August 1996		
DEPTH (m)	1.0		1.0		
pH (units)	6.0		7.0		
A.N.C. (Alkalinity)	6.2		6.7		
NITRATE NITROGEN	< 0.05		< 0.05		
TOTAL KJELDAHL NITROGEN	0.29		0.39		
TOTAL PHOSPHORUS	0.007		0.012		
CONDUCTIVITY (μ mhos/cm)	97.1		123.3		
APPARENT COLOR (cpu)	40		43		
MAGNESIUM					
CALCIUM					
SODIUM					
POTASSIUM					
CHLORIDE	21		30		
SULFATE	5		3		
TN : TP	41		33		
CALCITE SATURATION INDEX					

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1996

D.O. S.D. PLANT CHL TOTAL CLASS

**	4	2	**	6	Meso.
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COMMENTS:

1. Stanford Pond is a small (11 acres), shallow (mean depth 4 feet) pond. Two stations were sampled because the pond is divided into two parts by a railroad bed. Water moves from the northern section to the southern section via a culvert under the railroad.
2. Only the northern station was sampled during the winter. Water quality data was collected from both stations in the summer, but plankton and chlorophyll were collected only from the southern station.

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Town: HARRISVILLE	Maximum depth (m):	2.1
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Longitude: 72°06'41" W	Shore configuration:	1.83
Elevation (ft): 1245	Areal water load (m/yr):	7.07
Shore length (m): 1390	Flushing rate (yr ⁻¹):	5.30
Watershed area (ha): 56.4	P retention coeff.:	0.60
% watershed ponded: 0.0	Lake type:	natural

<u>BIOLOGICAL:</u>		10 February 1997	20 August 1996
DOM. PHYTOPLANKTON (% TOTAL)	#1	NOT SAMPLED	PERIDINIUM 50%
	#2		
	#3		
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			5.62
DOM. ZOOPLANKTON (% TOTAL)	#1		CYCLOPOID COPEPOD 57%
	#2		NAUPLIUS LARVA 17%
	#3		
ROTIFERS/LITER			6
MICROCRUSTACEA/LITER			59
ZOOPLANKTON ABUNDANCE (#/L)			65
VASCULAR PLANT ABUNDANCE			Scat/Common
SECCHI DISK TRANSPARENCY (m)			1.7 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)			8.5
BACTERIA (E. coli, #/100 ml)	#1		< 10
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m³): None
Anoxic volume (m³): None

CHEMICAL:Lake: STANFORD POND, STN S
Town: HARRISVILLE

	10 February 1997		20 August 1996		
DEPTH (m)			1.0		
pH (units)			6.9		
A.N.C. (Alkalinity)			4.7		
NITRATE NITROGEN			< 0.05		
TOTAL KJELDAHL NITROGEN			0.38		
TOTAL PHOSPHORUS			0.009		
CONDUCTIVITY (μ mhos/cm)			95.4		
APPARENT COLOR (cpu)			27		
MAGNESIUM			0.82		
CALCIUM			2.2		
SODIUM			14.2		
POTASSIUM			0.71		
CHLORIDE			22		
SULFATE			3		
TN : TP			42		
CALCITE SATURATION INDEX			3.4		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1996

D.O. S.D. PLANT CHL TOTAL CLASS

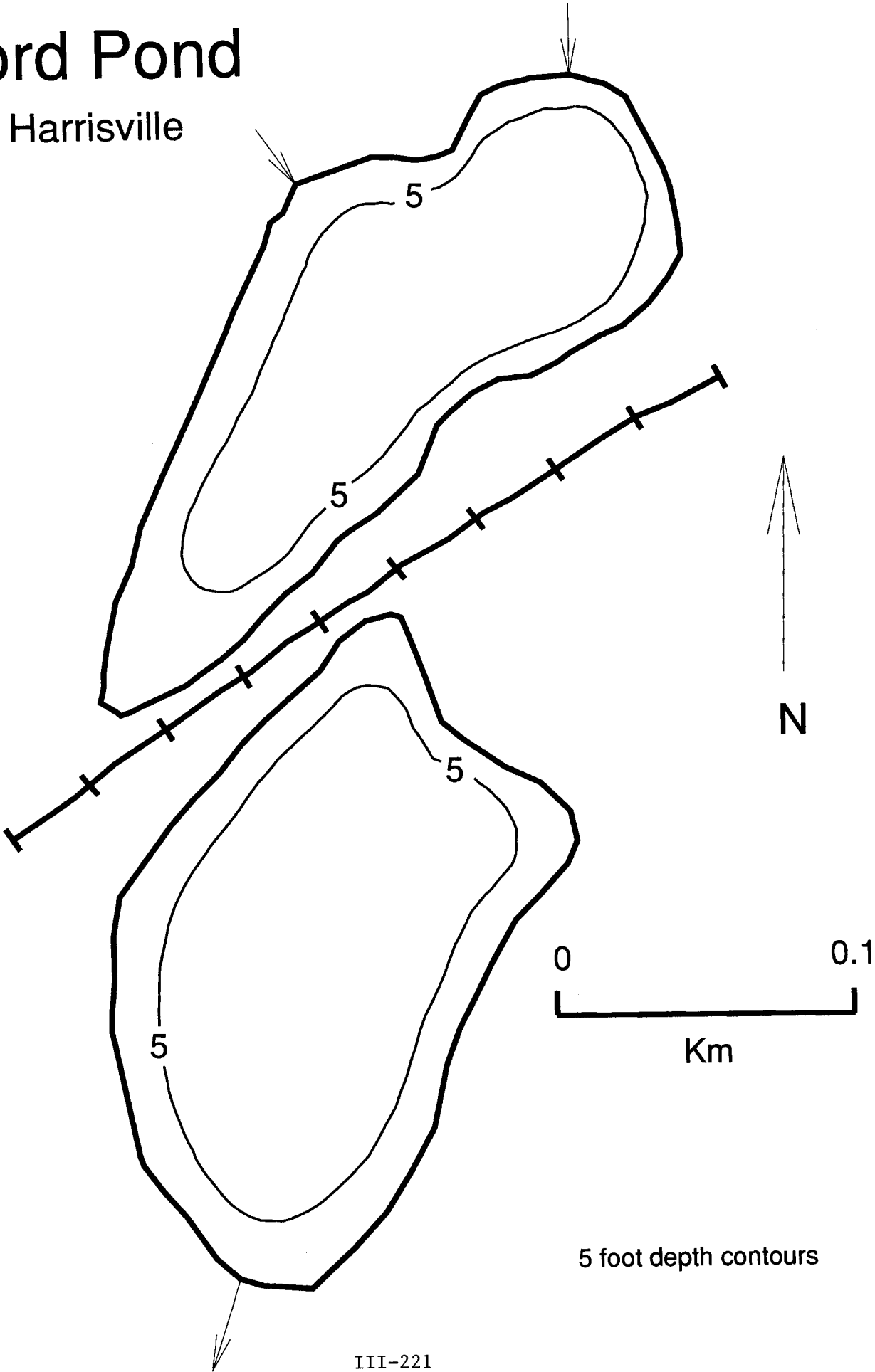
**	3	2	1	6	Meso.
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COMMENTS:

1. No winter data was collected from the southern station.
2. See northern station sheet for additional information.

Stanford Pond

Harrisville



FIELD DATA SHEET

LAKE: STANFORD POND, STN N	TOWN: HARRISVILLE
DATE: 08/20/96	WEATHER: CLEAR, WARM, SLIGHT BREEZE

LAKE: STANFORD POND, STN N	TOWN: HARRISVILLE
DATE: 08/20/96	WEATHER: CLEAR, WARM, SLIGHT BREEZE

[illegible]

SECCHI DISK (m):	1.2	COMMENTS:
BOTTOM DEPTH (m):	1.9	
TIME:	1123	
*Dissolved oxygen values are in mg/L		

SECCHI DISK (m):	1.2	COMMENTS:
BOTTOM DEPTH (m):	1.9	
TIME:	1123	
*Dissolved oxygen values are in mg/L		

SECCHI DISK (m):	1.2	COMMENTS:
BOTTOM DEPTH (m):	1.9	
TIME:	1123	
*Dissolved oxygen values are in mg/L		

[illegible]

TOWN: HARRISVILLE
WEATHER: CLEAR, WARM, SLIGHT BREEZE

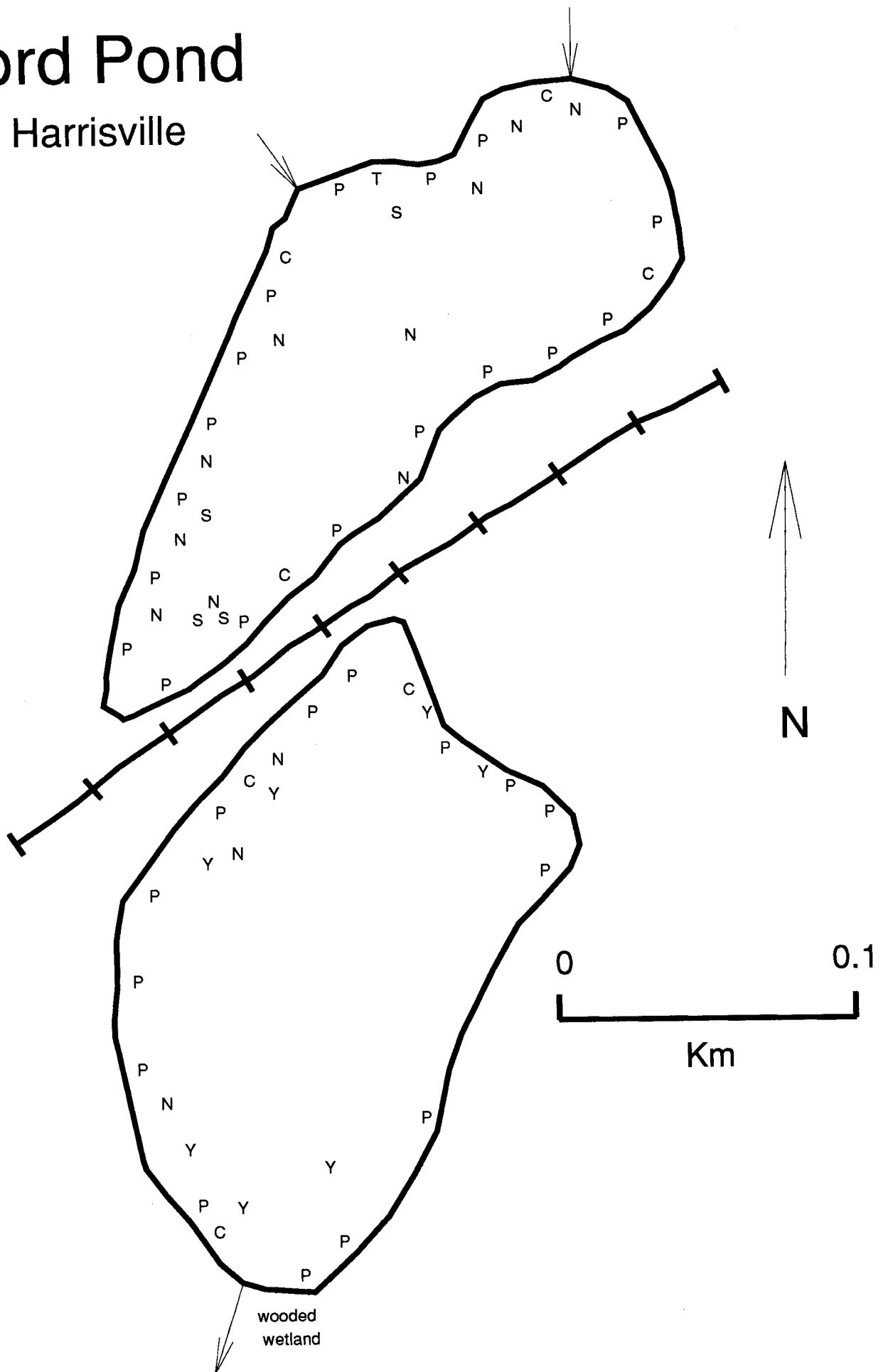
[illegible]

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SECCHI DISK (m):    1.7 VOB      COMMENTS:
BOTTOM DEPTH (m):   1.7
TIME: 1123
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*Dissolved oxygen values are in mg/L

Stanford Pond

Harrisville



[illegible]

AQUATIC PLANT SURVEY

LAKE: STANFORD POND, STN S	TOWN: HARRISVILLE	DATE: 08/20/96
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LAKE: STANFORD POND, STN S	TOWN: HARRISVILLE	DATE: 08/20/96
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LAKE: STANFORD POND, STN S	TOWN: HARRISVILLE	DATE: 08/20/96
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[illegible]

	OVERALL ABUNDANCE: Scat/Common
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GENERAL OBSERVATIONS:

1. Plants were mostly close to shore.